Instructions

Dyna-Star® HP or HF Pump Low Level Indicator Kit; Dip Stick Kit

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EN

Provides a visual reference of remaining fluid level in a tank / reservoir used with the Dyna-Star HP or HF pump. Low Level Indicators equipped with a user supplied alarm will also provide an audible and/or visual notification of a low fluid level. For professional use only.

Low Level Indicator Part No: 77X522

Includes sight glass, electric low level switch and cable. Requires follower plate. Cannot be used with Auto-Fill® Shut Off.

Dip Stick Part No: 77X530 - 90#; 77X531 - 60#

Cannot be used with a follower plate or Auto-Fill Shut Off.

Important Safety Instructions

Read all warnings and instructions in this manual and in the Dyna-Star HP or HF Pump instruction manual. Save all instructions.

Part No. 77X522

Part No. 77X530 or 77X531

Installation

Warnings

See the Dyna-Star HP and HF Pump Instruction manual for additional warnings.

SKIN INJECTION HAZARD

High-pressure fluid from dispense device, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. **Get immediate surgical treatment.**

Follow **Pressure Relief Procedure** in this manual, when you stop dispensing and before cleaning, checking, or servicing equipment.

Pressure Relief

Follow the Pressure Relief Procedure whenever you see this symbol.

This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as skin injection, splashing fluid and moving parts, follow the Pressure Relief Procedure when you stop dispensing and before cleaning, checking, or servicing the equipment.

To relieve pressure in the system, use two wrenches working in opposite directions on pump outlet fitting to ***slowly loosen fitting only*** until fitting is loose and no more lubricant or air is leaking from fitting. See FIG. 1.

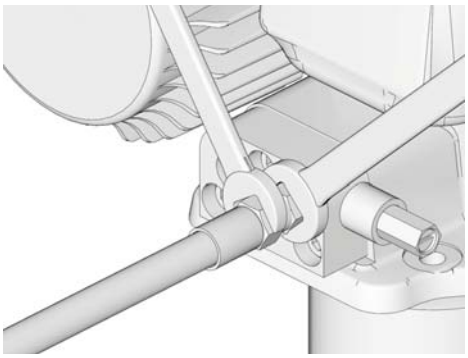

FIG. 1

Installing Low Level Indicator

1. Disconnect Dyna-Star pump from main power source.
2. If unit has already been in service, **relieve pressure** (see Pressure Relief procedure, page 2).
3. Fill reservoir with grease to raise follower plate (if installed) to an easily accessible level.

   NOTE:

   - Installing the follower plate and low level will be easier if the reservoir has been filled with grease first.
   - If a follower plate is not pre-installed, fill tank at least half full.
4. Remove plug (a) from cover (b). Discard plug, you will not reuse it (FIG. 2).

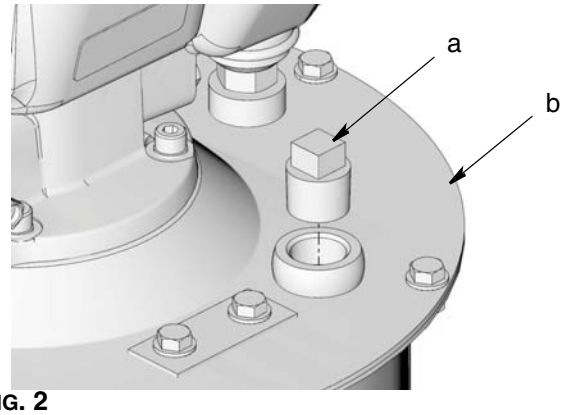

FIG. 2

5. Loosen bolts (c) and remove cover (d) from Dyna-Star pump (FIG. 3).

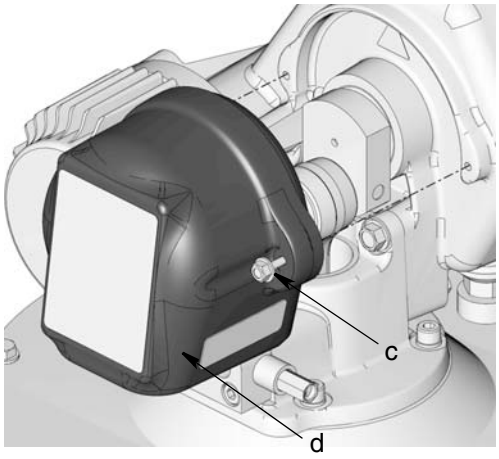

FIG. 3

6. Remove screws (e) and washers (f) holding Dyna-Star Pump to reservoir cover (b) and remove pump from cover (FIG. 4).

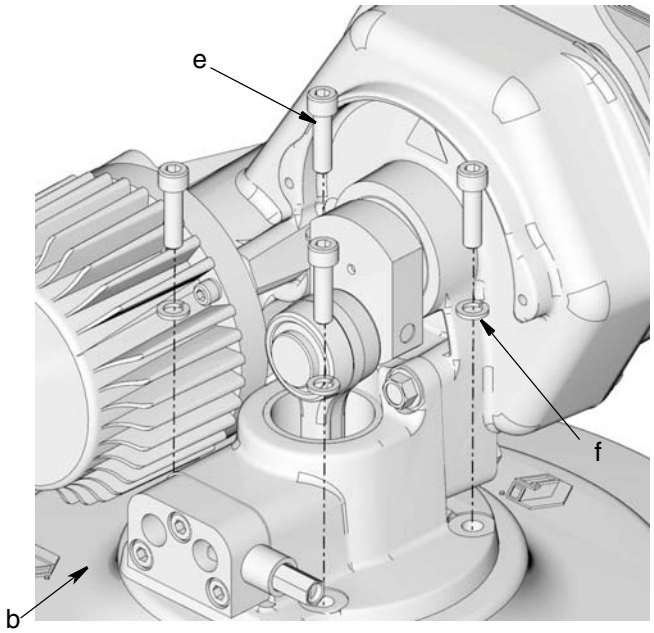

FIG. 4

7. Remove the screws (g) (holding the reservoir cover (b) to the reservoir (h) (FIG. 5).

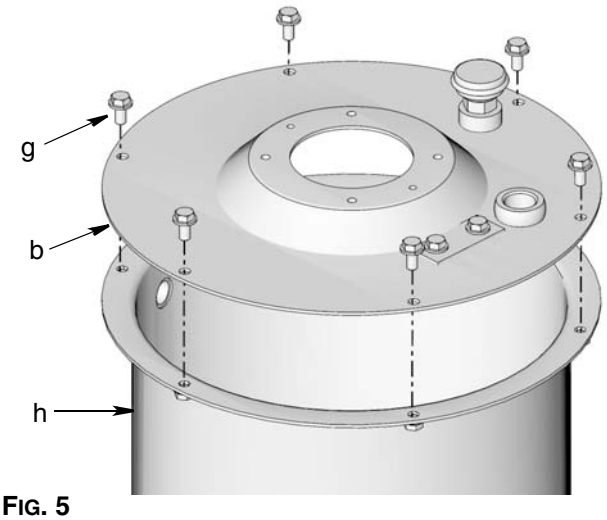

FIG. 5

8. (If previously installed) remove follower plate from inside reservoir.

9. Determine the correct cable length to use for your pump reservoir.

   - Short cable is used with 60# reservoirs.
   - Long cable is used with 90# reservoirs.

Remove and discard the cable you are not using and the ***Notice*** label attached to the cables.

NOTICE

Failure to use the correct cable length could result in inaccurate level indication and low level shutdown.

10. For easy wiring, make sure the DIN connector is facing out (FIG. 6). Feed the low level cable (j) through accessory hole (aa) in the reservoir cover (b). Wrench tighten low level in place.

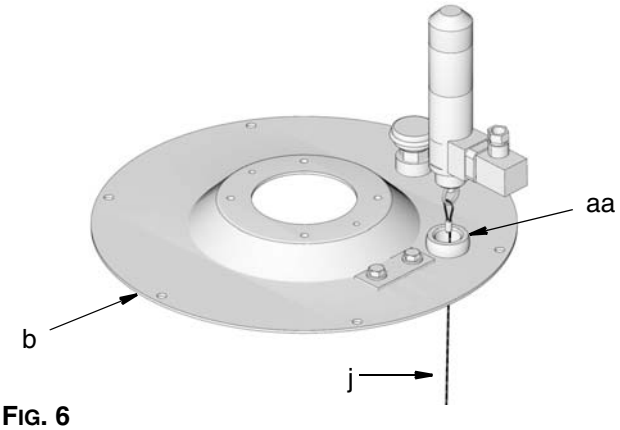

FIG. 6

11. Remove one of the screws (k) from the follower plate (m) (FIG. 7).

12. Install screw (k) through the hole (n) in the cable bracket (p) located at the end of the low level cable (j) and then through the screw hole (r) in the follower plate (m) (FIG. 7). Tighten screw securely.

    NOTE: Cable bracket (p) is slightly bent. Be sure to install so the bracket will sit flat against the surface of the follower plate.

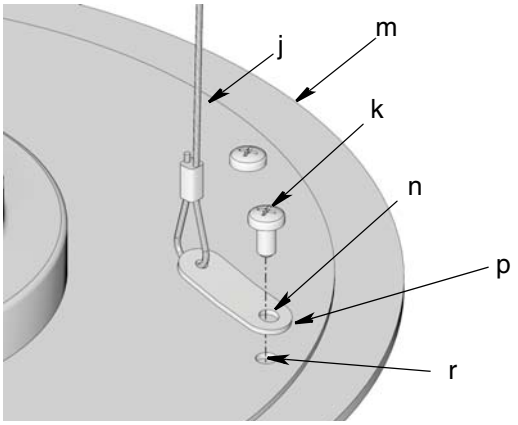

FIG. 7

13. Install follower plate (m) on top of grease inside reservoir (h) with the cone side facing up. Press follower plate firmly into grease to remove all air pockets.

14. Place reservoir cover (b) on top of reservoir (h).

    NOTE: When reservoir cover (b) is correctly installed on reservoir (h), the low level cable (j) (installed between the low level indicator and follower plate (m) will be aligned in a straight and vertical line as shown in FIG. 8.

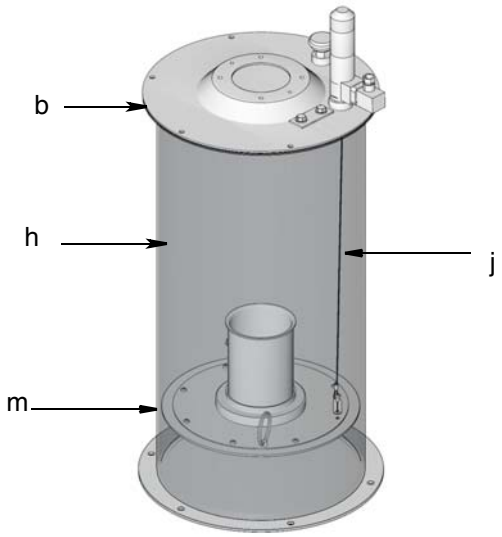

FIG. 8

15. Replace and tighten screws (g) securely (FIG. 9).

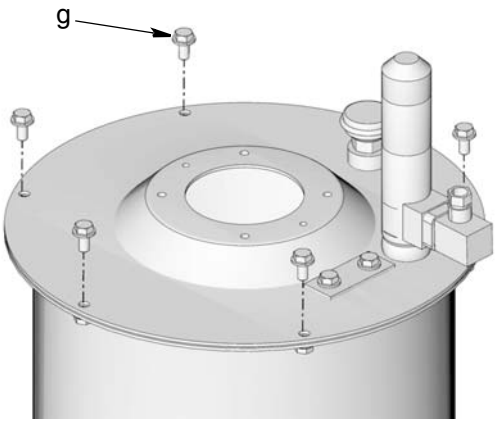

FIG. 9

16. Slide pump down-tube through hole in the center of the reservoir cover (b) and hole in the center of the follower plate (m) as shown in FIG. 10.

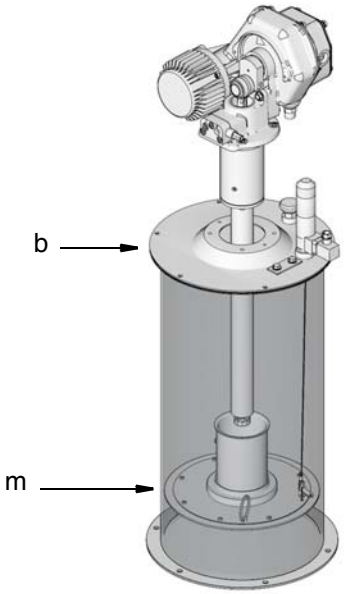

FIG. 10

NOTE: When pump is correctly installed, the breather (t) will be below the control box (s) as shown in FIG. 11.

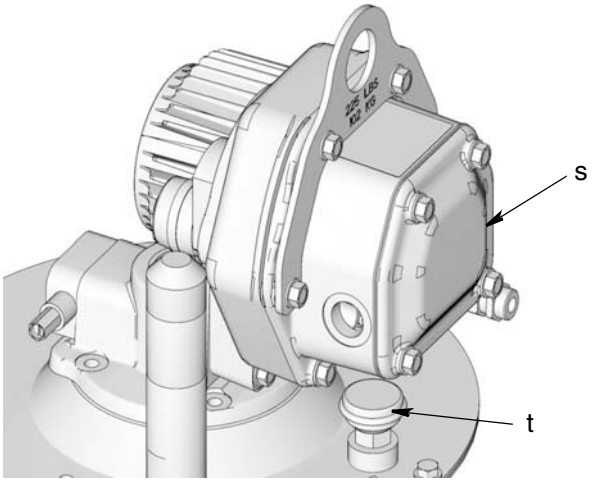

FIG. 11

17. Replace screws (e) and washers (f) and wrench tighten securely (FIG. 12).

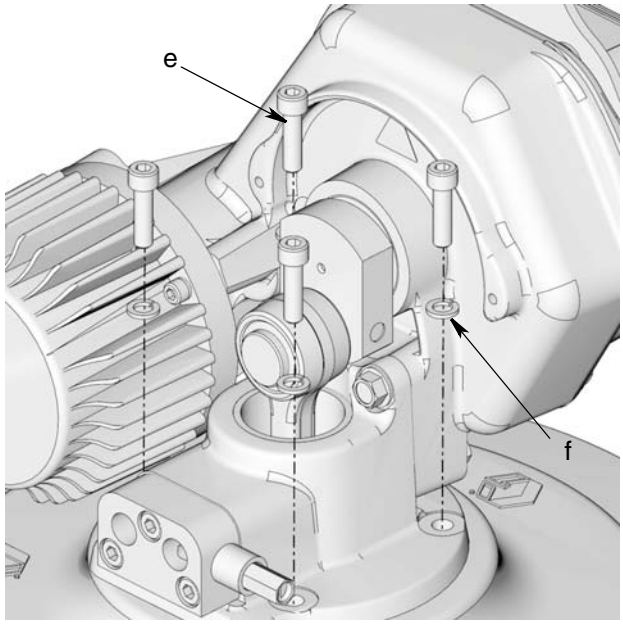

FIG. 12

18. Reinstall cover (d) using bolts (c) (FIG. 13). Use a wrench to tighten bolts securely.

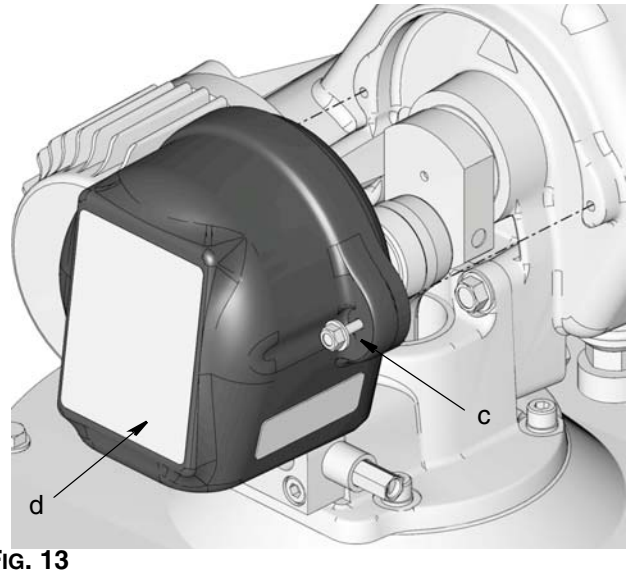

FIG. 13

External Alarm or Warning Light (Optional)

An external (user supplied) alarm or warning light can be added to the Low Level Indicator to provide an audible or visual signal in a low level situation.

NOTICE

To avoid premature failure and the loss of fluid/low level indication:

- Do not exceed the rating of the Low Level Sensor Switch by connecting excessive lights or audible signals.
- Level Sensor Switch is rated for a maximum of 32 VDC and 10 Watts. Maximum switch current is 0.4 AMPS.

1. Connect the DIN connector on the Low Level Indicator to the (user supplied) alarm device. Connection is made to PINS 1 and 3 of the DIN, Form “A” Field Wireable Adapter. See FIG. 14.

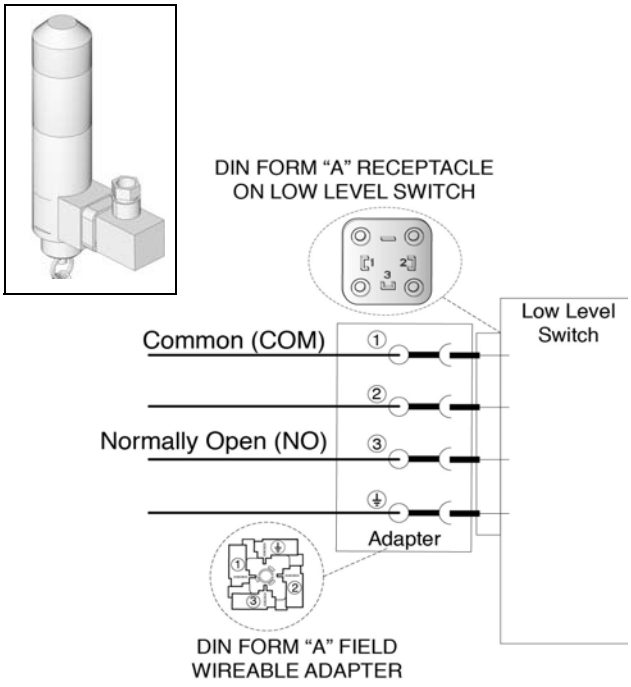

FIG. 14

2. Connect Dyna-Star pump to main power source.
3. Start system following pump start up procedure included in the Dyna-Star HP or HF Pump Manual provided with your system.

Low Level Visual Indication Sight Glass

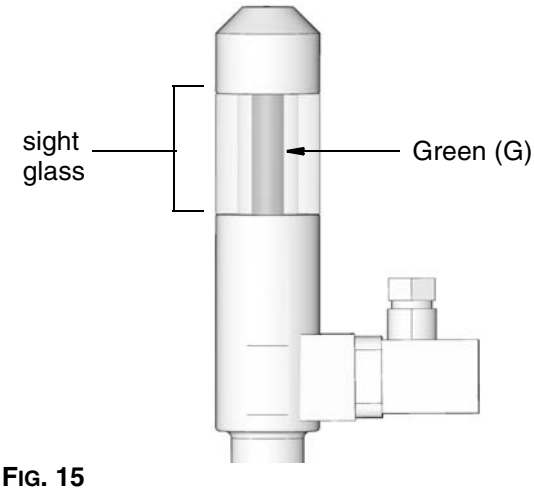

FIG. 15

Normal Level Mark (FIG. 15) - Red rod is completely covered by the green tube (G) and no red is visible in sight glass. This appearance indicates that the lubrication supply container has sufficient material. No additional lubricant needs to be added.

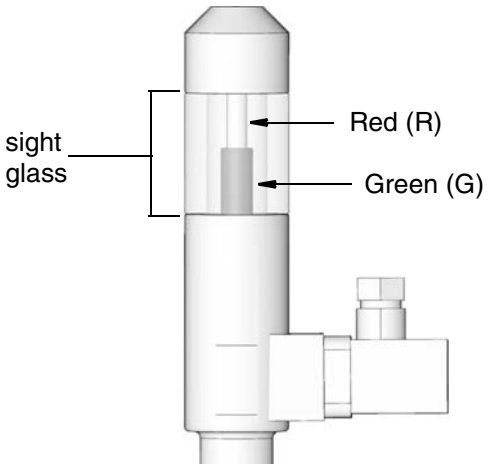

FIG. 16

Low Level Range (FIG. 16) - Red rod (R) is partially covered by the green tube (G). Some red is partially visible at the top of the sight glass. This appearance indicates that the lubrication supply container is approaching the low level mark and needs to be refilled.

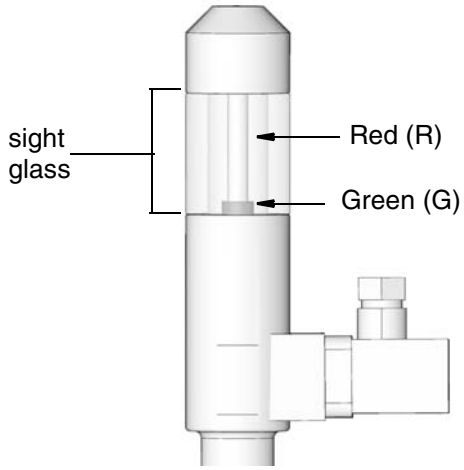

FIG. 17

Low Level Mark (FIG. 17) - Red rod (R) is completely visible with green tube (G) at lowest level. This appearance indicates that the main lubrication supply container is low and needs to be refilled.

For models equipped with a (user provided) external alarm, when the fluid has reached this low level mark, the sensor switch closes, activating the alarm.

Dip Stick Installation

1. Remove plug (a) from cover (b). Discard plug, you will not reuse it (FIG. 18).

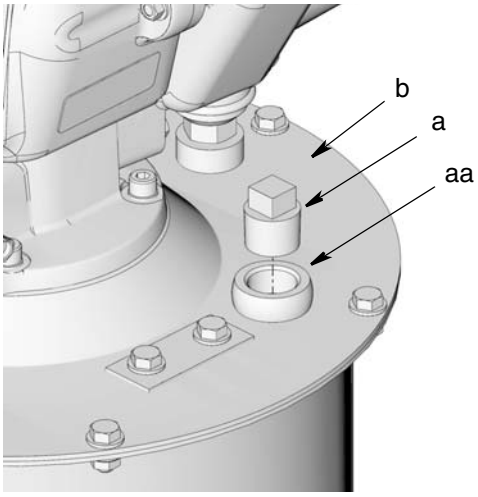

FIG. 18

2. Slide dipstick through hole (aa) in cover (b) and into reservoir (FIG. 18 and FIG. 19). Wrench tighten it in place.

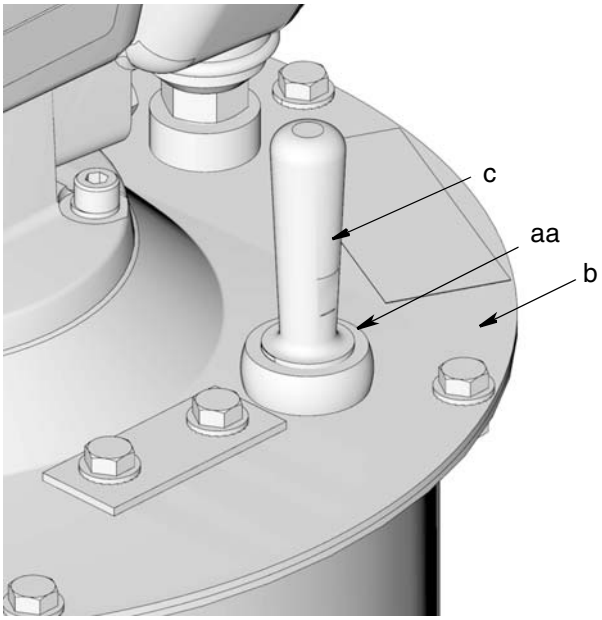

FIG. 19

3. To determine the level of the fluid remaining in the reservoir, loosen and remove dip stick (c) from reservoir cover (b).

All written and visual data contained in this document reflects the latest product information available at the time of publication.
Graco reserves the right to make changes at any time without notice.

For patent information, see www.graco.com/patents.

Original instructions. This manual contains English. MM 332515

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4. Use a clean rag to wipe oil/grease from end of dip stick (c).

5. Insert dipstick (c) through hole (aa) in cover (b) as far down as it will go and then remove it again. Visually inspect level of oil/grease remaining on dip stick.

Low Level Indicator Technical Data

Low level sensor switch	Normally open sensor switch, closes upon low level
Operating temperature range	-50°F to 150°F (-45°C - 65°C)
Electrical Ratings	
Switching Power	10 Watt Max.
Switching Current	0.4A-Max.
Switching Voltage	5 - 32 VDC
Contact Resistance	0.150 Initial Ohms - Max.
Body Thread	3/4 inch npt(m)
Wetted Parts	
Cable	Nylon coated stainless steel
Crimp Tab	Stainless steel

Dip Stick Technical Data

Body Thread	3/4 inch npt(m)
Wetted Parts	Zinc plated steel

Graco Information

For the latest information about Graco products, visit www.graco.com.

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